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Reply to Office Action of May 3, 2007

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claims 1-3.   (Canceled)

4.   (Currently Amended) A ~~customizable application~~ system ~~having processor-readable storage devices and processor-readable code embedded therein for executing instructions on a computer system~~ for generating application user interfaces having a customized user interaction, comprising:

~~an Internet application system operable to support execute an Internet application, the Internet application associated with metadata configured for generating a plurality of application user interfaces each having a customizable interaction model, the Internet application system including a user interface generator operable to generate the application user interface and a web application server operable to deliver the application user interface to a client;~~

a personalization server ~~system~~ including a personalization engine and operable to deliver a user profile interface to a user, the personalization system being further operable to allow [[a]] the user to modify personalization data for that user through the user profile interface, the personalization data characterizing [[the]] a customizable interaction model [[in]] for use with a plurality of application user interfaces; ~~and a user-modifiable personalization interface tool, further allowing a user to each modify the customizable interaction model for that user; and~~

an Internet application server operable to execute a selected Internet application of the plurality of Internet applications including a selected application user interface, the Internet application server including a user interface generator operable to generate markup language including the selected application user interface using metadata for the selected application user interface, the customizable interaction model, and the personalization data for the user, in order to include the customized interaction with the selected application user interface;

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a data repository including a data record for storing the personalization data, the data record being accessible using the metadata; and

a web server operable to deliver the generated markup language for the selected application interface to a client device for the user,

wherein the customizable interaction model is usable by each plurality of Internet applications to provide the customizable interaction characterized by the personalization of the user independent of the type of application user interface used by that Internet application.

5.   (Currently Amended) The ~~customizable application~~ system of claim 4, wherein ~~members of~~ the plurality of application user interfaces utilizes ~~include~~ separately configurable interaction models.

6.   (Currently Amended) The ~~customizable application~~ system of claim 4, wherein timing of communication between the client device and the web ~~application~~ server is responsive to the customizable interaction model.

7.   (Currently Amended) A system ~~embodied in a computer readable medium~~ for developing an Internet application including an application user interface with a customizable user interaction, the system comprising:

an application development server operable to allow ~~an integrated development environment configured for~~ a developer to specify a user interface element to be included in the ~~Internet~~ application user interface, the user interface element ~~having~~ being associated with a user customizable interaction model, ~~the user customizable interaction model configured to determine timing of communication between a client displaying the application user interface and a server supporting the Internet application,~~ the user customizable interaction model ~~further~~ allowing each user of the application user interface to modify functionality of the user interface element, the user customizable interaction model operable to be used with any application user interface independent of the type of interface;

an application designer configured to produce metadata to characterize the user customizable interaction model; ~~and~~

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a personalization server including a personalization engine and operable to deliver a user profile interface to a user, the personalization system being further operable to allow the user to modify personalization data for that user through the user profile interface, the personalization data characterizing the customizable interaction model for use with the Internet application and any other application using that customizable interaction model; and

a data repository including a user modifiable data record configured to ~~characterize~~ store the personalization data characterizing the ~~user-modified functionality of the~~ user customizable interaction model. ~~, the data record being accessible using the metadata wherein said access is executed by processors having processor readable code embedded therein for executing instructions to said one or more processors to perform a method of providing a access to a data storage enterprise-wide computer system.~~

8.   (Currently Amended) The system of claim 7, wherein the <u>application development server</u> ~~integrated development environment~~ is further configured to specify display of an interaction model control command in the application user interface, the interaction model control command being configured for a user to change the user customizable interaction model.

9.   (Previously Presented) The system of claim 7, wherein the user customizable interaction model includes deferred and immediate modes.

10.   (Previously Presented) The system of claim 7, wherein the user customizable interaction model is configurable according to the identity of a user or the identity of the client.

11.   (Previously Presented) The system of claim 7, wherein a state of the user customizable interaction model is further configurable to persist between uses of the application user interface.

12.   (Currently Amended) The system of claim 7, wherein the user modifiable data record is <u>further</u> user modifiable using a configuration system.

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Claims 13-14. (Canceled)

15.   (Currently Amended) A ~~customizable application~~ system ~~having processor readable storage devices and processor readable code embedded therein for executing instructions on a computer system~~ for generating a user interface with customized user interaction, comprising:

an Internet application ~~system configured~~ server operable to support an Internet application;

an application user interface generator operable to generate a user interface for the Internet application for display on a client, ~~including a user interface element, the application user interface configured as an interface between the Internet application and a user,~~ the user interface ~~element including~~ being generated using a customizable interaction model and personalization data for a user allowing the user to modify ~~functionality of~~ a user interaction with the user interface; ~~element, the user interface element with user-modified functionality configured for delivery to a client over a computer network;~~

metadata characterizing the customizable interaction model; and

a data repository including a data record for characterizing the customizable interaction model, the data record being user modifiable and being accessible using the metadata,

wherein the customizable interaction model is operable to be used to generate a respective application user interface for each of a plurality of additional applications, whereby the user interaction customized by the user is able to be used with the respective application user interface independent of a type of the application user interface.

16.   (Currently Amended) The ~~customizable application~~ system of claim 15, wherein the application user interface is configured for display on the client using standard web browser protocols.

17.   (Currently Amended) The ~~customizable application~~ system of claim 15, wherein the application user interface is further configured for display on the client using features of a web browser, the features not requiring a browser add-on, plug-in, or extension.

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18.   (Canceled)

19.   (Currently Amended) The ~~customizable application~~ system of claim 15, further including a configuration system configured to modify the data record.

20.   (Currently Amended) The ~~customizable application~~ system of claim 19, wherein the configuration system is included in the Internet application.

21.   (Currently Amended) An Internet application system having processor readable storage devices and processor readable code embedded therein for executing instructions on a computer system, comprising:

a user interface generator configured to generate an application user interface, the application user interface being compatible with a standard web browser and being generated in response to a request from a user, the user interface <u>generator utilizing</u> ~~including~~ a user customizable interaction model~~, the user customizable interaction model configured to determine timing of communication from a client displaying the application user interface, the user customizable interaction model further~~ allowing each user of the application user interface to modify <u>user interaction with</u> ~~functionality of at least one user interface element in~~ the application user interface;

a web application server configured to deliver the <u>generated</u> application user interface ~~including the user-modified functionality~~ to the client; and

an Internet application accessible to the user through the generated application user interface<u>,</u>

<u>wherein the customizable interaction model is operable to be used to generate a respective application user interface for each of a plurality of additional applications, whereby the user interaction customized by the user is able to be used with the respective application user interface, independent of a type of the application user interface, and delivered to the client.</u>

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22.   (Previously Presented) The Internet application system of claim 21, wherein the user interface generator is further configured to use metadata to characterize the user customizable interaction model.

23.   (Previously Presented) The Internet application system of claim 21, wherein the user customizable interaction model is specific to a user interface element included in the application user interface.

24.   (Previously Presented) The Internet application system of claim 21, wherein the user interface generator is further configured to use a user modifiable data record to characterize the user customizable interaction model.

25.   (Previously Presented) The Internet application system of claim 24, wherein the Internet application includes a configuration system configured to modify the user modifiable data record.

26.   (Previously Presented) The Internet application system of claim 21, wherein the user customizable interaction model is responsive to an identity of the client or to an identity of the user.

27.   (Previously Presented) The Internet application system of claim 21, wherein the user customizable interaction model includes deferred and immediate modes.

28.   (Previously Presented) The Internet application system of claim 21, wherein the client is wireless system.

29.   (Currently Amended) A computer program product ~~An Internet application having processor readable storage devices and processor readable code embedded therein for executing instructions on a computer system~~ embedded in a computer readable medium for generating a customizable application user interface, comprising:

        ~~a computer program embodied in a computer readable medium and configured to run on an Internet application system;~~

program code for generating an application user interface ~~including a user
interface element with~~ using a customizable interaction model, the application user interface
configured for delivery to a client and to operate as an interface between a user and the computer
program;

program code for allowing the user to modify personalization data for the user
characterizing the customizable interaction model for use with the application user interface and
any other application interface using that customizable interaction model;

program code for storing a user modifiable data record ~~stored~~ in a location
physically remote from the client, the data record ~~configurable for use by a user interface
generator to generate the application user interface, the data record being configurable by a user
to allow the user to modify functionality of the user interface element, the data record~~
characterizing the customizable interaction model including the user-modified functionality; and

program code for storing metadata configurable for use by the user interface
generator to access the user modifiable data record,

wherein the customizable interaction model is operable to be used to generate a
respective application user interface for each of a plurality of additional applications, whereby
the user interaction customized by the user is able to be used with the respective application user
interface, independent of a type of the application user interface, and delivered to the client.

30.   (Currently Amended) The computer program product ~~Internet application~~
of claim 29, wherein the customizable interaction model includes deferred and immediate modes.

31.   (Currently Amended) The computer program product ~~Internet application~~
of claim 29, wherein the user interface generator is responsive to an identity of the user.

Claims 32-37. (Canceled)

38.   (Currently Amended) A method of developing an application user
interface associated with an Internet application, the method comprising the steps of:

selecting a user customizable interaction model characterized by a data record, the data record being stored in a data repository and being user modifiable allowing a user to modify functionality of at least one user interface element in the application user interface, the data repository being physically remote from a client used to display the application user interface;

generating the application user interface for the user using ~~including~~ the user customizable interaction model and the data record; ~~in the application user interface;~~

generating metadata characterizing the user customizable interaction model including the user-modified functionality, the metadata including a reference to the data record; and

storing the metadata in association with the Internet application, the Internet application being configured for access using the application user interface,

wherein the user customizable interaction model is operable to be used to generate a respective application user interface for each of a plurality of additional applications, whereby the functionality customized by the user is able to be used with the respective application user interface, independent of a type of the application user interface.

39.   (Previously Presented) The method of claim 38, wherein the application user interface includes an interaction model control command.

40.   (Previously Presented) The method of claim 38, further including determining when communication occurs between the client and the Internet application responsive to the interaction model.

41.   (Currently Amended) A method of generating an application user interface, the method comprising the steps of:

accessing a page definition, the page definition including metadata associated with a customizable property of a interaction model;

accessing a data record using the metadata, the data record being stored in a data repository and being user modifiable allowing a user to modify the customizable property, the

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data repository being physically remote from a client used to display the application user interface;

determining a value characterizing the customizable property using the data record;

generating markup-language responsive to the determined value; and

including the generated markup-language in the application user interface, the application user interface being an interface to an Internet application,

wherein the user interaction model is operable to be used to generate a respective application user interface for each of a plurality of additional applications, whereby the customizable property customized by the user is able to be used with the respective application user interface, independent of a type of the application user interface.

42.   (Previously Presented) The method of claim 41, further including modifying the data record using a personalization system.

43.   (Previously Presented) The method of claim 41, wherein the customized property includes a deferred mode.

44.   (Previously Presented) The method of claim 41, wherein the customized property is configured according to an identity of a user or an identity of the client.

45.   (Currently Amended) A method of ~~developing an HTML based application user interface including~~ personalizing a user customizable interaction model to be used with multiple application user interfaces, the method comprising the steps of:

selecting a user customizable interaction model associated with a data record and specifying interaction functionality to be associated with ~~of at least one user interface element in~~ each [[the]] application user interface, the data record being configurable by a user for characterizing the user customizable interaction model, the user customizable interaction model including a plurality of interaction modes;

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generating at least one application user interface using ~~including~~ the user customizable interaction model; ~~in the HTML-based application user interface;~~

generating metadata characterizing the user customizable interaction model, the metadata including a reference to the data record; and

storing the metadata in association with an application, the application being configured for access using the application user interface,

wherein the user interaction model is operable to be used to generate a respective application user interface for each of a plurality of applications, whereby the interaction functionality specified by the user customizable interaction model is able to be used with the respective application user interface, independent of a type of the application user interface.

46.   (Previously Presented) The method of claim 45, wherein a mode of the user customizable interaction model is responsive to a command included in the application user interface.

47.   (Previously Presented) The method of claim 45, wherein a customizable property of the user customizable interaction model includes an immediate mode.

48.   (Previously Presented) The method of claim 45, wherein a customizable state of the user customizable interaction model is configurable to persist between uses of the HTML based application user interface.

Claims 49-59. (Canceled)

60.   (Currently Amended) A computer implemented method of executing an Internet application, ~~one or more processor readable storage devices digitally coupled to one or more processors having processor readable code embedded therein for executing instructions to said one or more processors to perform a method of providing a control function for a computer system, the method~~ comprising the steps of:

receiving a request from a user for an application user interface from a client, the application user interface including a user interface element;

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accessing a page definition, the page definition including metadata characterizing the application user interface;

retrieving a value characterizing a customizable interaction model associated with the user interface ~~element~~ using the metadata, the value being stored in a data repository physically remote from the client, the value further being specified by [[a]] <u>the</u> user in order to modify <u>interaction</u> functionality of ~~at least one user interface element in~~ the application user interface;

generating HTML responsive to the retrieved value;

including the generated HTML in the application user interface; and

delivering the application user interface to the client, the application user interface being an interface between a user and the Internet application<u>,</u>

<u>wherein the customizable interaction model is further associated with additional applications whereby the modified interaction functionality is able to be included in a respective application user interface for each additional application independent of a type of interface being generated</u>.

61.   (Previously Presented) The method of claim 60, wherein the retrieved value is used to determine a deferred or immediate mode of the customizable interaction model.

62.   (Currently Amended) The method of claim 60, wherein the customizable interaction model is specific to [[the]] <u>a</u> user interface element.

63.   (Previously Presented) The method of claim 60, further including displaying the application user interface at the client using standard web browser protocols.

64.   (Previously Presented) The method of claim 60, further including identifying a requestor of the application user interface, wherein the customizable interaction model is responsive to the identity of the requester.

Claims 65-70. (Canceled)

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71.   (Currently Amended) A computer implemented method of generating an application user interface configured for delivery from a server to a client, ~~the interface digitally coupled to one or more processor readable storage devices and one or more processors having processor readable code embedded therein for executing instructions to said one or more processors to perform the method~~ comprising the steps of:

receiving, at the server, a request for the application user interface from <u>a user at</u> the client;

identifying the ~~requester~~ <u>user requesting</u> [[of]] the application user interface, the application user interface <u>being associated with</u> ~~including~~ a user customizable interaction model;

accessing a page definition, the page definition including metadata and characterizing the application user interface;

retrieving, using the metadata and the identity of the ~~requester~~ <u>user</u>, a value for characterizing the user customizable interaction model, the value being selected by the requestor in order to modify <u>interaction</u> functionality of ~~at least one user interface element in~~ the application user interface, the value being stored in a data repository;

generating HTML incorporating the interaction model using the value;

including the generated HTML in the application user interface; and

delivering the application user interface from the server to the client<u>,</u>

<u>wherein the customizable interaction model is further associated with additional applications whereby the modified interaction functionality is able to be included in a respective application user interface for each additional application independent of a type of interface being generated</u>.

72.   (Previously Presented) The method of claim 71, further including communicating from the client to the server responsive to the interaction model.

73.   (Previously Presented) The method of claim 72, wherein the communication occurs in a deferred mode.

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74.   (Previously Presented) The method of claim 71, further including displaying an interaction model control command in the user interface.

Claims 75-77. (Canceled)